

**Amendments to the Abstract:**

Please add the following new Abstract of the Disclosure as a separate page after the claims:

ABSTRACT OF THE DISCLOSURE

A system for launching a payload has a rotating flywheel that accelerates a traditionally designed rocket to a significant speed. Rotational energy from the flywheel is transferred in the form of kinetic energy through a spiral surface and a cable to the rocket. The system comprises a smaller rocket carrying less fuel, provided with a smaller first stage engine. All other components of the system are re-used. This leads to a simpler and more efficient design of the rocket and to a considerable reduction in launch costs.